

Claims

[c1] A steering wheel level device, comprising:
a level indicator holder; and
a grip assembly adapted to releasably affix the level indicator holder to different sizes and shapes of steering wheels.

[c2] The steering wheel level device of claim 1, wherein the level indicator holder comprises:
an elongated member; and
a level indicator attached to the elongated member.

[c3] The steering wheel level device of claim 2, wherein the level indicator is attached proximate to a midpoint of the elongated member and in a position that will face a user sitting in a driver's seat of a vehicle when the grip assembly is releasably affixed to a steering wheel of the vehicle.

[c4] The steering wheel level device of claim 1, wherein the level indicator holder comprises:
an elongated member;
a recess formed in the elongated member; and
a level indicator retained in the recess.

[c5] The steering wheel level device of claim 4, wherein the recess is formed proximate to a midpoint of the elongated member and is positioned to cause the level indicator to face a user sitting in a driver's seat of a vehicle when the grip assembly is releasably affixed to a steering wheel of the vehicle.

[c6] The steering wheel level device of claim 1, wherein the level indicator is a bubble level vial.

[c7] The steering wheel level device of claim 1, wherein the grip assembly comprises:
a first end grip adapted to contact one side of a steering wheel; and
a second end grip adapted to contact another side of the steering wheel,
wherein at least one of the first end grip or the second end grip is biased to releasably affix the level indicator holder to the steering wheel.

[c8] The steering wheel level device of claim 7, wherein the first end grip and the second end grip are each adapted to contact an interior portion of the steering wheel and wherein at least one of the first end grip or the second end grip is biased to push the end grips away from one another and against the interior portion of the steering wheel when the grip assembly is releasably affixed to the steering wheel.

[c9] The steering wheel level device of claim 7, wherein the first end grip and the second end grip are each adapted to contact an exterior portion of the steering wheel and wherein at least one of the first end grip or the second end grip is biased to pull the end grips toward one another to clamp the level indicator holder to the steering wheel when the grip assembly is releasably affixed to the steering wheel.

[c10] The steering wheel level device of claim 7, wherein at least one end grip comprises:
a slide portion adapted to move relative to one end of the level indicator holder; and
a grip portion extending from the slide portion and adapted to contact the steering wheel.

[c11] The steering wheel level device of claim 10, further comprising:
a spring adapted to bias the slide portion relative to the level indicator holder;
an elongated slot formed proximate to the one end of the level indicator holder; and
a retaining pin attached to the slide portion and adapted to slide within the elongated slot when the grip assembly is releasably affixed to the steering wheel.

[c12] A steering wheel level device, comprising:
a level indicator holder;
a first end grip; and
a second end grip, wherein at least one of the first end grip and the second end grip are adjustable to releasably affix the level indicator holder to different sizes and shapes of steering wheels.

[c13] The steering wheel level device of claim 12, wherein the level indicator holder comprises:
an elongated rod; and
a level indicator attached to the elongated rod.

[c14] The steering wheel level device of claim 13, wherein each of the end grips comprises:
a slide portion adapted to move relative to the elongated rod of the level indicator holder; and
a grip portion extending from the slide portion, wherein the grip portion of each end grip is positioned to cause the level indicator to face a user sitting in a driver's seat of a vehicle when the steering wheel level device is releasably affixed to the steering wheel.

[c15] The steering wheel level device of claim 12, wherein each end grip comprises:
a tubular portion, wherein each end of the level indicator holder is adapted to slidably move within a portion of the tubular portion; and
a grip portion extending from the tubular portion.

[c16] The steering wheel level device of claim 15, further comprising:
a spring disposed inside each tubular portion to bias the level indicator holder when slidably inserted into the tubular portion;
an elongated slot formed proximate to each end of the level indicator holder; and
a retaining pin attached to each tubular portion and extending into each elongated slot, wherein the retaining pin is adapted to retain the level indicator holder within the tubular portion and wherein the retaining pin is adapted to slide within the elongated slot when the end grip is moved relative to the level indicator holder.

[c17] The steering wheel level device of claim 12, wherein each end grip comprises:
a slide portion, wherein the slide portion is adapted to slidably move relative to the level indicator holder; and
a grip portion extending from the slide portion and adapted to contact the steering wheel.

[c18] The steering wheel level device of claim 17, further comprising:
a spring to bias the slide portion of the end grip relative to the level indicator holder;
an elongated slot formed in the slide portion; and
a retaining pin attached to the level indicator holder and extending into the elongated slot, wherein the retaining pin is adapted to slide within the elongated slot when the end grip is moved relative to the level indicator holder.

[c19] The steering wheel level device of claim 12, wherein the first end grip and the second end grip each comprise a recess to facilitate attachment to a steering wheel.

[c20] A method of aligning wheels of a vehicle, comprising:
positioning a vehicle on an alignment machine;
releasably affixing a steering wheel level device to a steering wheel of the vehicle;
following an alignment procedure provided by the alignment machine; and
leveling the steering wheel using the steering wheel level device when instructed to do so by the alignment procedure.

[c21] The method of claim 20, wherein releasably affixing the steering wheel level device to the steering wheel comprises contacting an interior portion of the steering wheel with end grips of the steering wheel device by compressing at least one grip end grip against the interior portion of one side of the steering wheel.

[c22] The method of claim 20, further comprising removing the steering wheel level device from the steering wheel by compressing one end grip to disengage the other end grip from contacting the steering wheel.

[c23] The method of claim 20, wherein releasably affixing a steering wheel level to the steering wheel comprises positioning the steering wheel level device parallel to any horizontal spokes of the steering wheel.

[c24] The method of claim 23, further comprising positioning the steering wheel level device in contact with any horizontal spokes.

[c25] The method of claim 20, wherein leveling the steering wheel comprises adjusting tie rods of the vehicle until the steering wheel level device indicates that the steering wheel is level.

[c26] A method of making a steering wheel level device, comprising:
forming a level indicator holder; and
forming a grip assembly to releasably affix the level indicator to a steering wheel.

[c27] The method of claim 26, wherein forming the level indicator holder comprises:
forming an elongated member; and
forming a level indicator attached to the elongated member.

[c28] The method of claim 27, further comprising attaching the level indicator proximate to a midpoint of the elongated member and in a position to face a user sitting in a driver's seat of a vehicle when the grip assembly is releasably affixed to a steering wheel of the vehicle.

[c29] The method of claim 26, wherein forming the grip assembly comprises:
forming a first end grip adapted to contact one side of a steering wheel; and
forming a second end grip adapted to contact another side of the steering wheel; and
biasing at least one of the first end grip or the second end grip to releasably affix the level indicator holder to the steering wheel.

[c30] The method of claim 29, wherein forming the first end grip comprises:
forming a slide portion adapted to move relative to one end of the level indicator; and
forming a grip portion extending from the slide portion and adapted to contact the steering wheel.

[c31] The method of claim 30, further comprising:
providing a spring to bias the slide portion relative to the level indicator holder;
forming an elongated slot proximate to the one end of the level indicator holder; and
attaching a retaining pin to the slide portion, wherein the retaining pin is

adapted to slide within the elongated slot when the grip assembly is releasably affixed to the steering wheel.

[c32] The method of claim 26, further comprising:
forming a first end grip and a second end grip to contact an interior portion of the steering wheel; and
biasing at least one of the first end grip or the second end grip to push the end grips away from one another and against the interior portion of the steering wheel when the grip assembly is releasably affixed to the steering wheel.

[c33] The method of claim 26, further comprising:
forming a first end grip and a second end grip to contact an exterior portion of the steering wheel; and
biasing at least one of the first end grip or the second end grip to pull the end grips toward one another to clamp the level indicator holder to the steering wheel when the grip assembly is releasably affixed to the steering wheel.